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# Differential Impact of COVID-19 on Urological Surgeries in Public and Private Institutions at a Nationwide Level: Towards the Day of Reckoning

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The COVID-19 pandemic disrupted all routine health care services in 2020. To date, the true impact on surgical activities at a nationwide level remains restricted to public UK National Health Service reports [1], while the consequences for private health care institutions (which are highly involved in providing routine surgical care in many western countries) remain unknown. The context of the French health care system, in which public and private institutions are equally represented, could help to answer this question. Urology can be deemed as a fully relevant model reflecting surgical activity as it is among the top five specialties by volume [1] and has a unique balance in terms of patient gender, patient age, proportion of benign versus malignant diseases, and rates of emergency versus elective surgeries. Moreover, no urological disease or symptom directly linked to COVID-19 has been assessed to date, and all surgical pro-

cedures (except for transplantation) can equally be performed in a public or private health care facility.

We compared the number of urological procedures coded during 2019 and 2020 in public institutions and private health care facilities (Fig. 1). Data were extracted from the comprehensive and open access data set [2] of the national Technical Agency for Information on Hospital Care (ATIH) website [3]. The drop in the total number of surgical procedures was 1.74-fold more for the public sector than for the private sector. In line with the recommendations of professional societies [4], the most impacted areas were surgeries for benign disease, urinary incontinence, and benign prostatic hyperplasia, but with far less impact in the private sector. Cancer-related surgery was relatively maintained, with a decrease of <10% except for prostate cancer surgery in public hospitals. Urological drainage procedures (includ-

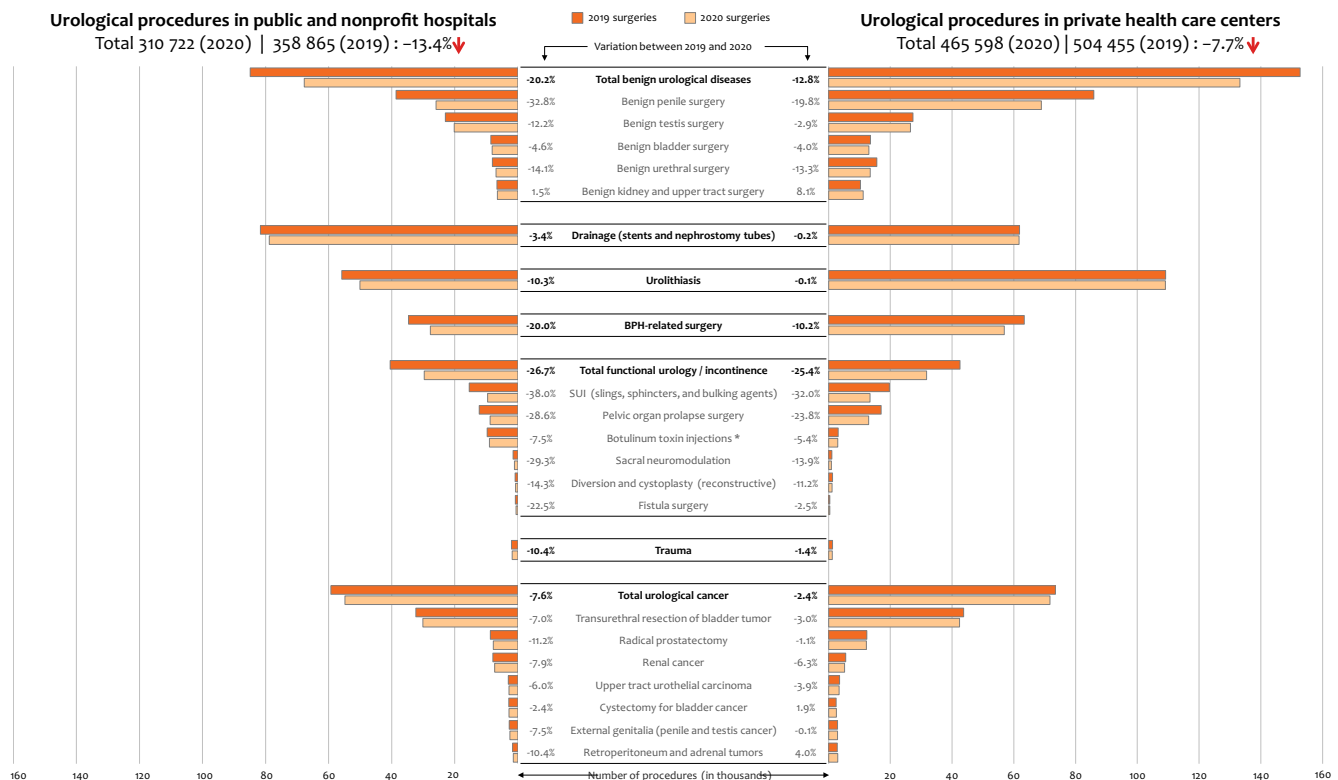


Fig. 1 – Volume of urological surgeries coded in 2019 and 2020. Each bar represents the sum of all coded procedures for each disease category, given that several procedures can be coded for the same patient. Codes for surgery were all extracted from the Classification commune des Actes Médicaux [2]. BPH = benign prostatic hyperplasia; SUI = stress urinary incontinence. \* Botulinum toxin injections are mostly carried out under local anesthesia, possibly explaining the sustained numbers in 2020.

ing emergencies) were roughly stable, whereas trauma activity slightly dropped in public hospitals, which is related to the lockdown. Urolithiasis-related procedures (mainly in the outpatient setting) were surprisingly stable in private institutions, despite clear recommendations to postpone these if needed [4].

In conclusion, a much more important decrease in surgical activity was found in the public sector than in private institutions in 2020 compared to 2019. This discrepancy can partly be linked to the fact that public institutions covered 90% of hospitalizations related to a proven infection with COVID-19 [2] in 2020. Other possible explanations are higher reactivity of private clinics after the initial lockdown to manage the surgical backlog and a transfer of activity from the public to the private sector. The prolonged effects of the crisis due to multiple COVID-19 waves may widen this gap between public and private surgical activity in the future.

**Conflicts of interest:** The authors have nothing to disclose.

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